

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) An Application Gateway Module (2) suitable for use in a telecommunication system wherein a service network (20) authenticates a user (1; 9) and authorizes ~~authorises~~ the user for accessing a service (5; 6) offered by a service provider (30), the Application Gateway Module (2) arranged for intercepting (1-2, 1-4; 1-2x, 1-4x) application messages between the user and the service and for identifying said user and said service, and including:

- means for obtaining an authorization ~~authorisation~~ decision (1-3; 1-3x) on whether the user is allowed to access the service ;

the Application Gateway Module (2) ~~characterised by~~ comprising:

- means for assigning a service session identifier (~~ServiceContextID~~) intended to identify those application messages exchanged between the user and the service and that belong to a same service delivery authorized ~~authorised~~ for said user;

- means for configuring a first finite-state machine (~~SCSM~~) with a number of status intended to identify specific events in service delivery where service progression can be controlled; and

- means for activating service policies (~~SF~~) applicable to said specific events and resulting in a state transition.

2. (Currently Amended) The Application Gateway Module of claim 1, wherein the means for assigning a service session identifier (~~ServiceContextID~~) include means for initiating a specific instance of the first finite-state machine (~~SCSM~~), said specific instance being identified by the assigned service session identifier (~~ServiceContextID~~).

3. (Currently Amended) The Application Gateway Module of claim 2, wherein the means for activating service policies (~~SF~~) include means for setting at least one element selected from a non-exhaustive list of references and attributes that comprises: a number of message field values to match, a number of specific actions to carry out on matching, a number of timer values to run, and a number of transactions to supervise.

4. (Currently Amended) The Application Gateway Module of claim 2, wherein the means for activating service policies (~~SF~~) include means for activating a global service policy independently of any service delivery in progress.

5. (Currently Amended) The Application Gateway Module of claim 2, wherein the means for activating service policies (~~SF~~) include means for initiating an instance of a global service policy to apply as an individual service policy within a specific instance of the first finite-state machine (~~SCSM~~), the individual service policy inheriting references and attributes from the global service policy.

6. (Currently Amended) The Application Gateway Module of claim 5, further comprising means for overwriting references and attributes of an individual service policy with new references and attributes during a service progression handled within a specific instance of the first finite- state machine (~~SCSM~~).

7. (Currently Amended) The Application Gateway Module of claim 5, wherein a particular state is associated with a number of individual service policies (~~SF-31; SF-32~~) within a specific instance of the first finite-state machine (~~SCSM~~), said instance identified by a given service session identifier (~~ServiceContextID~~).

8. (Currently Amended) The Application Gateway Module of claim 2, wherein the means for obtaining an authorization ~~authorisation~~ decision include means for requesting a service authorization ~~authorisation~~ from an Authorization ~~Authorisation~~ Module (~~3~~) ~~as claimed in claim 15~~.

9. (Currently Amended) The Application Gateway Module of claim 8, wherein the means for activating service policies (~~SF~~) include means for receiving from the Authorization ~~Authorisation~~ Module (3) at least one element applicable to set a service policy, the element selected from a non-exhaustive list of references and attributes that comprises: a number of message field values to match, a number of specific actions to carry out on matching, a number of timer values to run, and a number of transactions to supervise.

10. (Currently Amended) The Application Gateway Module of claim 8, wherein the means for activating service policies (~~SF~~) includes means for receiving a global service policy from the Authorization ~~Authorisation~~ Module (3).

11. (Currently Amended) The Application Gateway Module of claim 8, further comprising means for receiving references and attributes from the Authorization ~~Authorisation~~ Module (3) applicable to overwrite an individual service policy with new references and attributes during a service progression handled within a specific instance of the first finite-state machine (~~SGSM~~).

12. (Currently Amended) The Application Gateway Module of claim 8, further comprising means for notifying to the Authorization ~~Authorisation~~ Module (3) a specific event in service progression.

13. (Currently Amended) The Application Gateway Module of claim 8, further comprising means for requesting from the Authorization ~~Authorisation~~ Module (3) a further processing to determine an appropriate action to go on with the service progression.

14. (Currently Amended) The Application Gateway Module of claim 13, further comprising means for receiving from the Authorization ~~Authorisation~~ Module (3) an instruction selected from: access granted without restriction, another service

(~~serviceTER~~) to substitute a previous service requested (~~serviceBIS~~), forced logout, and indication of a state transition.

15. (Currently Amended) An Authorization ~~Authorisation~~ Module (~~3~~) suitable for use in a telecommunication system wherein a service network (~~20~~) authenticates a user (~~1; 9~~) and authorizes ~~authorises~~ the user for accessing a service (~~5; 6~~) offered by a service provider (~~30~~), the Authorization ~~Authorisation~~ Module arranged for deciding whether a user (~~1; 9~~) is allowed to access a service (~~5; 6~~) and having:

- means for receiving a service authorization ~~authorisation~~ request (~~S-511~~) from an Application Gateway Module (~~2~~) ~~as claimed in claim 1~~; and

- means for returning ~~back~~ to the Application Gateway Module (~~2~~) a response on whether the user (~~1; 9~~) is granted access to the requested service (~~5; 6~~);

the Authorization ~~Authorisation~~ Module (~~3~~) ~~characterised by comprising~~ :

- means for generating a service session identifier (~~ServiceContextID~~) intended to correlate those application messages exchanged between the user and the service and that belong to a same service delivery authorized ~~authorised~~ for said user;

- means for configuring a second finite-state machine (~~SPSM~~) with a number of status intended to identify specific events in service progression where the Authorization ~~Authorisation~~ Module can act over the Application Gateway Module to control the service progression; and

- means for determining service policies (~~SF~~) applicable to said specific events and resulting in a state transition.

16. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 15, wherein the means for generating a service session identifier (~~ServiceContextID~~) comprise means for including said service session identifier (~~ServiceContextID~~) in the response (~~S-512~~) to be returned to the Application Gateway Module (~~2~~) on whether the user (~~1; 9~~) is granted access to the requested service (~~5; 6~~).

17. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 16, wherein the means for generating a service session identifier (~~Service Context-ID~~) includes means for initiating a specific instance of the second finite-state machine (~~SPSM~~), said specific instance being identified by said service session identifier (~~ServiceContextID~~).

18. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 17, wherein a particular state is associated with a number of service policies within a specific instance of the second finite- state machine (~~SPSM~~), said instance identified by a given service session identifier (~~ServiceContextID~~).

19. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 15, wherein the means for determining service policies (~~SF~~) comprise means for including in the response (~~S-512~~) towards the Application Gateway Module (~~2~~) at least one information element to activate a service policy (~~SF-2~~) within a specific state in the Application Gateway Module, said at least one information element selected from a non-exhaustive list ~~Rist~~ of references and attributes that comprises:

- a number of message field values (~~Analyse-Info-SF-value;Logout-SF-value~~) to match;
- a set of actions to carry out on matching a given message field value ;
- a number of new timer values (~~Timeout-value~~) to run; and
- a number of transactions to supervise.

20. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 19, wherein the means for including in the response (~~S-512~~) towards the Application Gateway Module (~~2~~) at least one information element to activate a service policy include means for indicating that this is a global service policy to apply independently of any service delivery in progress.

21. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 16, further comprising means for receiving a notification, from an Application

Gateway Module (2) ~~as claimed in claim 1~~, indicating a specific event detected in service progression.

22. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 16, further comprising means for receiving a request, from an Application Gateway Module (2) ~~as claimed in claim 1~~, asking for an instruction to proceed with a service progression.

23. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 22, further comprising means for sending towards the Application Gateway Module (2) an instruction selected from: access granted without restriction, another service (~~serviceTER~~) to substitute a previous service requested (~~serviceBS~~), forced logout, and indication of a state transition.

24. (Currently Amended) The Authorization ~~Authorisation~~ Module of claim 16, further comprising means for receiving an application message (1-7; ~~1-8x~~) from at least one entity selected from a number of application servers (7; ~~8~~) and provisioning systems, the application message including a given service session identifier (~~ServiceContextID~~) intended to identify a specific instance of the second finite-state machine (~~SPSM~~) in the ~~Authorisation~~ Module (3).

25. (Currently Amended) A method for authorizing ~~authorising~~ a user (4; 9) of a service network (20) to access a service offered by a service server (5; 6) of a service provider (30), the user (4; 9) already authenticated by the service network, the server (5; 6) arranged to deliver a service that comprises a plurality of transactions by exchanging a plurality of application messages with the user (4; 9), the method comprising the steps of a step of:

- obtaining a first authorization ~~authorisation~~ decision (1-3; ~~1-3x~~) on whether the user is allowed to access the service;

~~the method characterised by comprising the steps of:~~

- generating and assigning a service session identifier (~~ServiceContextID~~) intended to identify those application messages exchanged between the user and the service and that belong to a same service delivery ~~authorized~~ authorised for said user;
- configuring at least one finite-state machine (~~SCSM~~; ~~SPSM~~) with a number of status intended to identify specific events in service delivery where service progression can be controlled; and
- activating service policies (~~SF~~) applicable to said specific events and resulting in a state transition.

26. (Currently Amended) The method of claim 25, wherein the step of generating and assigning a service session identifier (~~ServiceContextID~~) includes a step of initiating a specific instance of the at least one finite-state machine (~~SPSM~~; ~~SCSM~~), said specific instance being identified by the assigned service session identifier(~~ServiceContextID~~).

27. (Currently Amended) The method of claim 26, wherein a particular state within the specific instance of the at least one finite-state machine (~~SCSM~~; ~~SPSM~~) is associated with a number of service policies (~~SF 1~~; ~~SF 2~~; ~~SF 31~~; ~~SF 32~~).

28. (Currently Amended) The method of claim 25, wherein the step of activating service policies (~~SF~~) includes a step of setting at least one element selected from a non-exhaustive list of references and attributes that comprises: a number of message field values to match, a number of specific actions to carry out on matching, a number of timer values to run, and a number of transactions to supervise.

29. (Currently Amended) The method of claim 25, further comprising a step of receiving at the service network (~~20~~) an application message originated at an entity selected from: a number of service servers (~~5~~; ~~6~~) of a service provider(~~30~~) and a number of entities of a provisioning system, the application message including a given service session identifier (~~ServiceContextID~~) intended to identify a specific instance of the at least one finite-state machine (~~SCSM~~; ~~SPSM~~).

30. (Currently Amended) The method of claim 25, wherein the step of configuring at least one finite-state machine further comprises ~~a step of~~ configuring a first finite-state machine (~~SCSM~~) in an Application Gateway Module ~~(2) as claimed in claim 1~~, and ~~a step of~~ configuring a second finite-state machine (~~SPSM~~) in an Authorization ~~Authorisation~~ Module ~~(3) as claimed in claim 15~~.